

## Physical Chemistry Recitation

### SESSION B: Eigenfunctions.

Which of the following are eigenfunctions of the momentum operator (give the eigenvalues when appropriate) and which are eigenfunctions of the kinetic energy operator (give eigenvalues when appropriate).

- $\psi(x) = e^{ikx}$

- $\psi(x) = e^{-\alpha x^2}$

- $\psi(x) = \cos kx$

- $\psi(x) = kx$